IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant : Lorin R. DeBonte, et al. Art Unit : 1638
Serial No. : 09/771,904 Examiner : E. McElwain
Filed : January 29, 2001
Title : FATTY ACID DESATURASES AND MUTANT SEQUENCES THEREOF

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF GUO-HUA MIAO

I, Guo-Hua Miao, declare as follows:

1. I am a citizen of the United States of America and presently live at 8617 NW 70th Court, Johnston, Iowa, 50131. I am a named inventor on U.S. Patent Application Serial No. 09/771,904.

2. I received a Bachelor of Science degree in Biology from Shanghai Normal University, Shanghai, China in 1982, a Master of Science degree in Plant Physiology from Shanghai Institute of Plant Physiology, Chinese Academy of Science, Shanghai, China in 1984 and a Doctor of Philosophy degree in Molecular, Cellular, and Developmental Biology from The Ohio State University, Columbus, Ohio in 1991.

3. I was employed as a research associate at the Biotechnology Center, The Ohio State University, Columbus Ohio from 1991 to 1993.

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date of Deposit

Signature

Typed or Printed Name of Person Signing Certificate

4. I have been employed either by E. I. DuPont de Nemours and Company (DuPont) or one of its Affliates, from 1993 to the present.

5. Prior to June 20, 1994, I, or persons working under my guidance and supervision, in this country, sequenced a mutant delta-12 desaturase coding sequence from canola line IMC 129, as evidenced by a copy of two microfilmed pages from my laboratory notebook, which is attached as Exhibit A (Notebook F79066, pages 142-143). The dates on these pages, which are prior to June 20, 1994, have been blocked out. My signature is at the bottom of both notebook pages.

6. The coding sequence and deduced amino acid sequence of a wild-type delta-12 fatty acid desaturase from the canola variety Westar are set forth in the left-hand column of pages 142-143 of Exhibit A.

The results of my sequencing of IMC 129 showed that one of the IMC 129 delta-12 fatty acid desaturase coding sequences had a GAG codon in place of an AAG codon, as indicated in the right-hand column at page 142 and above nucleotide 316 in the sequence in the left-hand column at page 142. This mutation converted the glutamic acid (E) at amino acid residue 106 to a lysine (K). The mutation was confirmed by sequencing five independent PCR clones, as indicated in the right-hand column of page 143.

7. I hereby declare that all statements made herein of my knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable under 18 U.S.C. §1001 by fine or imprisonment, or both, and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Dated: March 8, 2004

Guo-Hua Miao